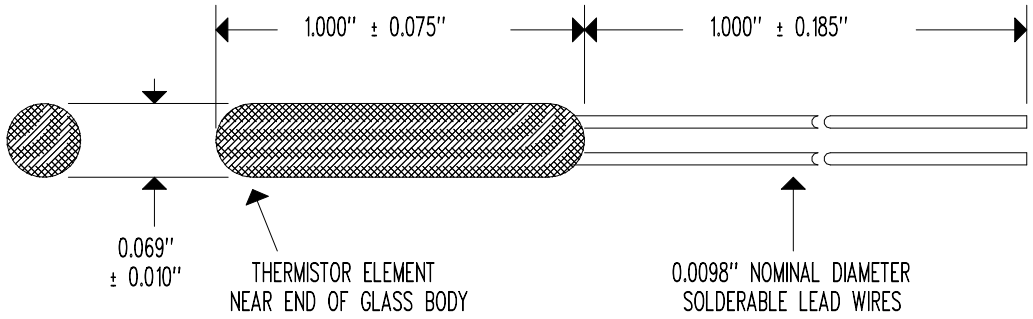

REV	DESCRIPTION	DATE	APP
0	INITIAL RELEASE	12/11/2018	DD

REVISION HISTORY

EI SENSOR TECHNOLOGIES
www.ei-sensor.com

P/N EGP1054J104

GLASS-ENCAPSULATED THERMISTOR

DRAWN BY: DAN DANKERT

SCALE: NONE | LAYER: 0 OF 2

REV: 0 | DATE: 12/11/2018

RESISTANCE @ +25°C = 100,000 Ω ± 5%
RESISTANCE/TEMPERATURE CURVE = "54"
TEMPERATURE COEFFICIENT @ +25°C = -4.68%/°C NOMINAL
BETA "β" (0 TO +50°C) = 4,142°K NOMINAL
BETA "β" (+25 TO +85°C) = 4,261°K NOMINAL
TEMPERATURE RATING = -50 TO +300°C

ROHS COMPLIANT

EI Sensor Technologies

Resistance Versus Temperature Table

P/N EGP1054J104 Revision "0"

Resistance @ +25°C = 100,000 Ω

Temperature (°C)	Temperature (°F)	Resistance Ratio (R@x°C/R@+25°C)	Resistance (Ω Nominal)
-50	-58.0	83.433	8,343,285
-49	-56.2	77.480	7,748,046
-48	-54.4	71.989	7,198,908
-47	-52.6	66.920	6,692,032
-46	-50.8	62.239	6,223,921
-45	-49.0	57.914	5,791,389
-44	-47.2	53.915	5,391,526
-43	-45.4	50.217	5,021,679
-42	-43.6	46.794	4,679,423
-41	-41.8	43.625	4,362,542
-40	-40.0	40.690	4,069,013
-39	-38.2	37.970	3,796,983
-38	-36.4	35.448	3,544,755
-37	-34.6	33.108	3,310,777
-36	-32.8	30.936	3,093,627
-35	-31.0	28.920	2,892,000
-34	-29.2	27.047	2,704,701
-33	-27.4	25.306	2,530,631
-32	-25.6	23.688	2,368,784
-31	-23.8	22.182	2,218,233
-30	-22.0	20.781	2,078,128
-29	-20.2	19.477	1,947,687
-28	-18.4	18.262	1,826,190
-27	-16.6	17.130	1,712,976
-26	-14.8	16.074	1,607,434
-25	-13.0	15.090	1,509,003

Temperature (°C)	Temperature (°F)	Resistance Ratio (R@x°C/R@+25°C)	Resistance (Ω Nominal)
-24	-11.2	14.172	1,417,166
-23	-9.4	13.314	1,331,445
-22	-7.6	12.514	1,251,399
-21	-5.8	11.766	1,176,624
-20	-4.0	11.067	1,106,742
-19	-2.2	10.414	1,041,409
-18	-0.4	9.8030	980,303
-17	1.4	9.2313	923,129
-16	3.2	8.6961	869,612
-15	5.0	8.1950	819,500
-14	6.8	7.7256	772,558
-13	8.6	7.2857	728,568
-12	10.4	6.8733	687,330
-11	12.2	6.4866	648,656
-10	14.0	6.1237	612,375
-9	15.8	5.7832	578,325
-8	17.6	5.4636	546,357
-7	19.4	5.1633	516,334
-6	21.2	4.8813	488,127
-5	23.0	4.6162	461,617
-4	24.8	4.3669	436,693
-3	26.6	4.1325	413,252
-2	28.4	3.9120	391,198
-1	30.2	3.7044	370,441
0	32.0	3.5090	350,900
1	33.8	3.3252	332,521
2	35.6	3.1520	315,205
3	37.4	2.9888	298,884
4	39.2	2.8350	283,497
5	41.0	2.6899	268,986
6	42.8	2.5530	255,295
7	44.6	2.4238	242,375
8	46.4	2.3018	230,179
9	48.2	2.1866	218,662
10	50.0	2.0778	207,783
11	51.8	1.9750	197,504
12	53.6	1.8779	187,788
13	55.4	1.7860	178,602
14	57.2	1.6991	169,914
15	59.0	1.6170	161,695

Temperature (°C)	Temperature (°F)	Resistance Ratio (R@x°C/R@+25°C)	Resistance (Ω Nominal)
16	60.8	1.5392	153,918
17	62.6	1.4656	146,555
18	64.4	1.3958	139,584
19	66.2	1.3298	132,982
20	68.0	1.2673	126,726
21	69.8	1.2080	120,798
22	71.6	1.1518	115,178
23	73.4	1.0985	109,850
24	75.2	1.0480	104,795
25	77.0	1.0000	100,000
26	78.8	0.95449	95,449
27	80.6	0.91129	91,129
28	82.4	0.87027	87,027
29	84.2	0.83131	83,131
30	86.0	0.79430	79,430
31	87.8	0.75913	75,913
32	89.6	0.72569	72,569
33	91.4	0.69390	69,390
34	93.2	0.66367	66,367
35	95.0	0.63491	63,491
36	96.8	0.60754	60,754
37	98.6	0.58150	58,150
38	100.4	0.55670	55,670
39	102.2	0.53309	53,309
40	104.0	0.51060	51,060
41	105.8	0.48917	48,917
42	107.6	0.46875	46,875
43	109.4	0.44929	44,929
44	111.2	0.43073	43,073
45	113.0	0.41303	41,303
46	114.8	0.39615	39,615
47	116.6	0.38005	38,005
48	118.4	0.36468	36,468
49	120.2	0.35001	35,001
50	122.0	0.33600	33,600
51	123.8	0.32262	32,262
52	125.6	0.30985	30,985
53	127.4	0.29764	29,764
54	129.2	0.28597	28,597
55	131.0	0.27482	27,482

Temperature (°C)	Temperature (°F)	Resistance Ratio (R@x°C/R@+25°C)	Resistance (Ω Nominal)
56	132.8	0.26416	26,416
57	134.6	0.25397	25,397
58	136.4	0.24422	24,422
59	138.2	0.23489	23,489
60	140.0	0.22596	22,596
61	141.8	0.21742	21,742
62	143.6	0.20924	20,924
63	145.4	0.20141	20,141
64	147.2	0.19391	19,391
65	149.0	0.18673	18,673
66	150.8	0.17984	17,984
67	152.6	0.17325	17,325
68	154.4	0.16693	16,693
69	156.2	0.16087	16,087
70	158.0	0.15505	15,505
71	159.8	0.14948	14,948
72	161.6	0.14414	14,414
73	163.4	0.13901	13,901
74	165.2	0.13408	13,408
75	167.0	0.12936	12,936
76	168.8	0.12483	12,483
77	170.6	0.12047	12,047
78	172.4	0.11629	11,629
79	174.2	0.11227	11,227
80	176.0	0.10841	10,841
81	177.8	0.10470	10,470
82	179.6	0.10114	10,114
83	181.4	0.097712	9,771.2
84	183.2	0.094417	9,441.7
85	185.0	0.091248	9,124.8
86	186.8	0.088200	8,820.0
87	188.6	0.085268	8,526.8
88	190.4	0.082447	8,244.7
89	192.2	0.079732	7,973.2
90	194.0	0.077119	7,711.9
91	195.8	0.074604	7,460.4
92	197.6	0.072182	7,218.2
93	199.4	0.069850	6,985.0
94	201.2	0.067605	6,760.5
95	203.0	0.065441	6,544.1

Temperature (°C)	Temperature (°F)	Resistance Ratio (R@x°C/R@+25°C)	Resistance (Ω Nominal)
96	204.8	0.063357	6,335.7
97	206.6	0.061349	6,134.9
98	208.4	0.059414	5,941.4
99	210.2	0.057548	5,754.8
100	212.0	0.055750	5,575.0
101	213.8	0.054016	5,401.6
102	215.6	0.052344	5,234.4
103	217.4	0.050731	5,073.1
104	219.2	0.049176	4,917.6
105	221.0	0.047675	4,767.5
106	222.8	0.046227	4,622.7
107	224.6	0.044829	4,482.9
108	226.4	0.043480	4,348.0
109	228.2	0.042178	4,217.8
110	230.0	0.040920	4,092.0
111	231.8	0.039706	3,970.6
112	233.6	0.038533	3,853.3
113	235.4	0.037400	3,740.0
114	237.2	0.036306	3,630.6
115	239.0	0.035249	3,524.9
116	240.8	0.034227	3,422.7
117	242.6	0.033239	3,323.9
118	244.4	0.032284	3,228.4
119	246.2	0.031361	3,136.1
120	248.0	0.030469	3,046.9
121	249.8	0.029606	2,960.6
122	251.6	0.028771	2,877.1
123	253.4	0.027963	2,796.3
124	255.2	0.027182	2,718.2
125	257.0	0.026426	2,642.6
126	258.8	0.025694	2,569.4
127	260.6	0.024986	2,498.6
128	262.4	0.024301	2,430.1
129	264.2	0.023637	2,363.7
130	266.0	0.022995	2,299.5
131	267.8	0.022373	2,237.3
132	269.6	0.021770	2,177.0
133	271.4	0.021186	2,118.6
134	273.2	0.020621	2,062.1
135	275.0	0.020073	2,007.3

Temperature (°C)	Temperature (°F)	Resistance Ratio (R@x°C/R@+25°C)	Resistance (Ω Nominal)
136	276.8	0.019542	1,954.2
137	278.6	0.019027	1,902.7
138	280.4	0.018528	1,852.8
139	282.2	0.018045	1,804.5
140	284.0	0.017576	1,757.6
141	285.8	0.017121	1,712.1
142	287.6	0.016680	1,668.0
143	289.4	0.016253	1,625.3
144	291.2	0.015838	1,583.8
145	293.0	0.015435	1,543.5
146	294.8	0.015045	1,504.5
147	296.6	0.014666	1,466.6
148	298.4	0.014298	1,429.8
149	300.2	0.013941	1,394.1
150	302.0	0.013595	1,359.5
151	303.8	0.013255	1,325.5
152	305.6	0.012924	1,292.4
153	307.4	0.012604	1,260.4
154	309.2	0.012293	1,229.3
155	311.0	0.011990	1,199.0
156	312.8	0.011697	1,169.7
157	314.6	0.011412	1,141.2
158	316.4	0.011135	1,113.5
159	318.2	0.010866	1,086.6
160	320.0	0.010605	1,060.5
161	321.8	0.010351	1,035.1
162	323.6	0.010105	1,010.5
163	325.4	0.009865	986.50
164	327.2	0.009632	963.20
165	329.0	0.009405	940.50
166	330.8	0.009185	918.50
167	332.6	0.008971	897.10
168	334.4	0.008763	876.30
169	336.2	0.008560	856.00
170	338.0	0.008363	836.30
171	339.8	0.008171	817.10
172	341.6	0.007985	798.50
173	343.4	0.007803	780.30
174	345.2	0.007627	762.70
175	347.0	0.007455	745.50

Temperature (°C)	Temperature (°F)	Resistance Ratio (R@x°C/R@+25°C)	Resistance (Ω Nominal)
176	348.8	0.007288	728.80
177	350.6	0.007125	712.50
178	352.4	0.006966	696.60
179	354.2	0.006812	681.20
180	356.0	0.006662	666.20
181	357.8	0.006515	651.50
182	359.6	0.006373	637.30
183	361.4	0.006234	623.40
184	363.2	0.006099	609.90
185	365.0	0.005967	596.70
186	366.8	0.005838	583.80
187	368.6	0.005713	571.30
188	370.4	0.005591	559.10
189	372.2	0.005472	547.20
190	374.0	0.005357	535.70
191	375.8	0.005244	524.40
192	377.6	0.005133	513.30
193	379.4	0.005026	502.60
194	381.2	0.004921	492.10
195	383.0	0.004819	481.90
196	384.8	0.004720	472.00
197	386.6	0.004622	462.20
198	388.4	0.004528	452.80
199	390.2	0.004435	443.50
200	392.0	0.004345	434.50
201	393.8	0.004257	425.70
202	395.6	0.004171	417.10
203	397.4	0.004087	408.70
204	399.2	0.004005	400.50
205	401.0	0.003925	392.50
206	402.8	0.003847	384.70
207	404.6	0.003771	377.10
208	406.4	0.003697	369.70
209	408.2	0.003624	362.40
210	410.0	0.003554	355.40
211	411.8	0.003484	348.40
212	413.6	0.003417	341.70
213	415.4	0.003351	335.10
214	417.2	0.003286	328.60
215	419.0	0.003223	322.30

Temperature (°C)	Temperature (°F)	Resistance Ratio (R@x°C/R@+25°C)	Resistance (Ω Nominal)
216	420.8	0.003161	316.10
217	422.6	0.003101	310.10
218	424.4	0.003042	304.20
219	426.2	0.002985	298.50
220	428.0	0.002929	292.90
221	429.8	0.002874	287.40
222	431.6	0.002820	282.00
223	433.4	0.002768	276.80
224	435.2	0.002716	271.60
225	437.0	0.002666	266.60
226	438.8	0.002617	261.71
227	440.6	0.002569	256.93
228	442.4	0.002523	252.25
229	444.2	0.002477	247.68
230	446.0	0.002432	243.20
231	447.8	0.002388	238.81
232	449.6	0.002345	234.52
233	451.4	0.002303	230.32
234	453.2	0.002262	226.21
235	455.0	0.002222	222.18
236	456.8	0.002182	218.24
237	458.6	0.002144	214.39
238	460.4	0.002106	210.61
239	462.2	0.002069	206.92
240	464.0	0.002033	203.30
241	465.8	0.001998	199.75
242	467.6	0.001963	196.29
243	469.4	0.001929	192.89
244	471.2	0.001896	189.56
245	473.0	0.001863	186.31
246	474.8	0.001831	183.12
247	476.6	0.001800	179.99
248	478.4	0.001769	176.93
249	480.2	0.001739	173.94
250	482.0	0.001710	171.00
251	483.8	0.001681	168.12
252	485.6	0.001653	165.31
253	487.4	0.001626	162.55
254	489.2	0.001598	159.84
255	491.0	0.001572	157.20

Temperature (°C)	Temperature (°F)	Resistance Ratio (R@x°C/R@+25°C)	Resistance (Ω Nominal)
256	492.8	0.001546	154.60
257	494.6	0.001521	152.06
258	496.4	0.001496	149.56
259	498.2	0.001471	147.12
260	500.0	0.001447	144.73
261	501.8	0.001424	142.38
262	503.6	0.001401	140.08
263	505.4	0.001378	137.83
264	507.2	0.001356	135.62
265	509.0	0.001335	133.46
266	510.8	0.001313	131.33
267	512.6	0.001293	129.25
268	514.4	0.001272	127.21
269	516.2	0.001252	125.21
270	518.0	0.001233	123.25
271	519.8	0.001213	121.33
272	521.6	0.001194	119.44
273	523.4	0.001176	117.59
274	525.2	0.001158	115.78
275	527.0	0.001140	114.00
276	528.8	0.001123	112.25
277	530.6	0.001105	110.54
278	532.4	0.001089	108.86
279	534.2	0.001072	107.22
280	536.0	0.001056	105.60
281	537.8	0.001040	104.02
282	539.6	0.001025	102.46
283	541.4	0.001009	100.93
284	543.2	0.0009944	99.440
285	545.0	0.0009797	97.970
286	546.8	0.0009652	96.520
287	548.6	0.0009511	95.110
288	550.4	0.0009372	93.720
289	552.2	0.0009235	92.350
290	554.0	0.0009102	91.020
291	555.8	0.0008970	89.700
292	557.6	0.0008841	88.410
293	559.4	0.0008715	87.150
294	561.2	0.0008590	85.900
295	563.0	0.0008468	84.680

Temperature (°C)	Temperature (°F)	Resistance Ratio (R@x°C/R@+25°C)	Resistance (Ω Nominal)
296	564.8	0.0008348	83.480
297	566.6	0.0008231	82.310
298	568.4	0.0008115	81.150
299	570.2	0.0008001	80.010
300	572.0	0.0007890	78.900